

CLAIM AMENDMENTS

Claims 1 to 28 (cancelled).

1 29. (new) A process for deformation of an element by the
2 application of con rolled pressure on said element or for coupling
3 a thermoplastic material and fibers of a composite of co-mixed
4 fibers which comprises one of the steps of:

5 (a) applying pressure to said element through compression
6 means sensitive to the variation of the chemical-physical
7 characteristics of said element when it is subjected to a
8 predetermined temperature; and

9 (b) applying a calibrated pressure onto the composite
10 with compression means sensitive to the variation of the
11 chemical-physical characteristics of said thermoplastic material
12 when it is subjected to a predetermined temperature.

1 30. (new) The process defined in claim 29 wherein said
2 compression means is made from a heat-shrinking product.

1 31. (new) The process defined in claim 29 wherein said
2 compression means is made from a tensoelastic product.

1 32. (new) The process defined in claim 29 wherein said
2 element is made from thermoplastic material.

1 33. (new) The process defined in claim 32 wherein said
2 element is made from thermoplastic composite material.

1 34. (new) The process defined in claim 33 wherein said
2 thermoplastic composite material comprises at least one substance
3 selected from glass, carbon, Kevlar, natural or metal fibers and
4 mixtures thereof.

1 35. (new) The process defined in claim 33 wherein said
2 thermoplastic composite material is made with a thermosetting
3 composite material before a polymerization step.

1 36. (new) A deformation process as defined in claim 29
2 for an element through the application or calibrated pressure on
3 it, wherein said element is made from thermoplastic material and in
4 that said pressure is realized through compression means arranged
5 on an outer surface of a zone of the element that one wishes to
6 deform and suitable for applying said pressure when said composite
7 element is taken to a temperature at which its chemical-physical

8 characteristics change and it reaches a predetermined degree of
9 malleability.

1 37. (new) A process as defined in claim 29 for realizing
2 an element on a mold, characterized in that said element is made
3 from thermoplastic material that can be applied to the mold and on
4 which calibrated pressure is applied through compression means
5 suitable for applying said pressure when said thermoplastic
6 composite element is taken to a temperature at which its
7 chemical-physical characteristics change and it reaches a
8 predetermined degree of malleability.

1 38. (new) A coupling process as defined in claim 29
2 between a thermoplastic material and fibers of a composite of
3 co-mixed fiber, wherein a calibrated pressure is applied onto the
4 composite realized through compression means arranged on the outer
5 surface of said composite of co-mixed fiber and suitable for
6 applying said pressure when said thermoplastic material is taken to
7 a temperature which its chemical-physical characteristics change in
8 such a way as to determine the impregnation thereof with said
9 fibers .

1 39. (new) A deformation process of an element defined
2 in claim 29 wherein said element has a core inside of it to
3 configure it with a shape matching said core.

1 40. (new) The deformation process defined in claim 39
2 wherein said core is removable.

1 41. (new) The deformation process defined in claim 39
2 wherein said core is wooden and is integrally connected to said
3 element.

1 42. (new) The deformation process defined in claim 39
2 wherein said core is made from plastic and is fixedly connected to
3 said element through a chemical link due to the compatibility of
4 plastic with the resin matrix of the composite.

1 43. (new) The deformation process defined in claim 29
2 wherein said core is an integral part of another element such as a
3 tool or connection member.

1 44. (new) The deformation process defined in claim 39
2 wherein said core is made from a thermally conductive material to
3 take said element to said predetermined temperature.

1 45. (new) The deformation process defined in claim 39
2 wherein said core has a surface configuration suitable for
3 realizing a deformation zone with the same configuration only on an
4 inner surface of said element.

1 46. (new) The deformation process defined in claim 39
2 wherein said core has a surface configuration suitable for
3 realizing a deformation zone with the same configuration on inner
4 and outer surfaces of said element.

1 47. (new) The deformation process defined in claim 36
2 wherein said zone is coated with a thermoplastic composite
3 material having arrangement of the fibers perpendicular to those of
4 said element.

1 48. (new) The deformation process defined in claim 29
2 wherein said compression means is a shrinking or tensoelastic
3 product in the form of a sheath, band or cap, to be uniformly

4 associated with the outer surface of said element at a temperature
5 lower than said predetermined temperature.

1 49. (new) The deformation process of an element
2 according to claim 29 wherein said compression means is a heat
3 shrinking product activated at an activation temperature
4 close to said predetermined temperature at which said element
5 becomes malleable.

1 50. (new) The coupling process according to claim 29
2 wherein said composite of co-mixed fiber has one or more layers
3 that can be applied to a mold.

1 51. (new) The coupling process according to claim 50
2 wherein at least one insert is present between the layers of said
3 co-mixed fiber composite.

1 52. (new) The coupling process according to claim 50
2 wherein layers of said co-mixed fiber composite have different
3 orientations of the fibers.

1 53. (new) A deformed element made from thermoplastic
2 material and having a deformation obtained through the action of a
3 heat shrinking or tensoelastic product associated with the outer
4 surface.

1 54. (new) The use of a heat shrinking or tensoelastic
2 product associated with the outer surface of a thermoplastic
3 composite element for its deformation.